

WHAT IS CLAIMED IS:

- Sub
A/
1. A system for decoding at least one message symbol represented by a plurality of code symbols in an audio signal, comprising:
 - means for receiving first and second code symbols representing a common message symbol, the first and second code symbols being displaced in time in the audio signal;
 - means for accumulating a first signal value representing the first code symbol and a second signal value representing the second code symbol; and
 - means for examining the accumulated first and second signal values to detect the common message symbol.
 2. The system of claim 1, wherein the accumulating means is operative to produce a third signal value derived from the first and second signal values and the examining means is operative to detect the common message symbol based on the third symbol value.
 3. The system of claim 2, wherein the accumulating means is operative to produce the third signal value by linearly combining the first and second signal values.
 4. The system of claim 2, wherein the accumulating means is operative to produce the third signal value as a non-linear function of the first and second signal values.
 5. The system of claim 2, wherein the first and second code symbols each comprise a predetermined number of frequency components, and further comprising means for producing first and second sets of component values, each set corresponding to a respective one of the first and second code symbols and each component value of each set representing a characteristic of a respective frequency component of the corresponding symbol, and means for producing the first signal value based on the first set of component values and producing the second signal value based on the second set of component values.

500
A2

6. The system of claim 2, wherein the receiving means is operative to receive plural sets of first and second code signals, each set representing a respective one of a plurality of message symbols arranged as a message having a predetermined sequence including at least one marker symbol and at least one data symbol, the accumulating means is operative to accumulate sets of first and second signal values, each signal value set corresponding to a respective one of the sets of first and second code signals and including a first signal value representing the first code signal of the respective code signal set and a second signal value representing the second code signal thereof and the examining means is operative to detect the message by detecting the presence of the marker symbol based on its signal value set and to detect at least one data symbol based on the detected presence of the marker symbol and the corresponding signal value set of the at least one data symbol.

7. The system of claim 1, wherein the accumulating means is operative to store the first and second signal values, and the examining means is operative to detect the common message symbol by examining both of the first and second signal values.

8. The system of claim 7, wherein the accumulating means is operative to produce the first and second signal values based on multiple other signal values.

9. The system of claim 8, wherein the first and second signal values are produced from respective sets of time displaced signal values, each of the time displaced signal values representing a value of a respective one of the first and second code symbols during a corresponding time period thereof.

10. The system of claim 8, wherein the first and second code symbols each comprise a predetermined number of frequency components, and further comprising means for producing first and second sets of component values, each set corresponding to a respective one of the first

and second code symbols and each component value of each set representing a characteristic of a respective frequency component of the corresponding symbol, and means for producing the first signal value based on the first set of component values and producing the second signal value based on the second set of component values.

11. The system of claim 1, wherein the receiving means comprises an acoustic transducer for transducing an acoustic audio signal to an electrical signal, the acoustic audio signal having a plurality of code symbols representing a plurality of message symbols comprising source data for the acoustic audio signal, and further comprising a memory for storing indications of detected message symbols.

12. The system of claim 11, further comprising a housing for the system adapted to be carried on the person of an audience member and means for transmitting the stored data for use in producing audience estimates.

13. A method for decoding at least one message symbol represented by a plurality of code symbols in an audio signal, comprising:

receiving first and second code symbols representing a common message symbol, the first and second code symbols being displaced in time in the audio signal;

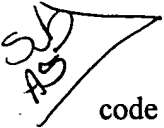
accumulating a first signal value representing the first code symbol and a second signal value representing the second code symbol; and

examining the accumulated first and second signal values to detect the common message symbol.

14. The method of claim 13, wherein the step of receiving first and second code symbols comprises transducing an acoustic audio signal to an electrical signal, the acoustic audio

signal having a plurality of message symbols comprising source data for the acoustic audio signal, and further comprising storing data representing indications of detected message symbols.

15. The method of claim 14, further comprising transmitting the stored data for use in producing audience estimates.

35
AB  16. A system for decoding at least one message symbol represented by a plurality of code symbols in an audio signal, comprising:

an input device for receiving first and second code symbols representing a common message symbol, the first and second code symbols being displaced in time in the audio signal; and

a digital processor in communication with the input device to receive data therefrom representing the first and second code symbols, the digital processor being programmed to accumulate a first signal value representing the first code symbol and a second signal value representing the second code symbol, the digital processor being further programmed to examine the accumulated first and second signal values to detect the common message symbol.

17. The system of claim 16 wherein the input device comprises an acoustic transducer for transducing an acoustic audio signal to an electrical signal, the acoustic audio signal having a plurality of code symbols representing a plurality of message symbols comprising source data for the acoustic audio signal, the digital processor having a memory for storing data representing indications of detected message symbols.

18. The system of claim 17, further comprising a housing for the system adapted to be carried on the person of an audience member and means for transmitting the stored data for use in producing audience estimates.